



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,907	02/12/2002	Soo Seok Choi	1567.1022	3556
49455	7590	06/20/2006	EXAMINER	
STEIN, MCEWEN & BUI, LLP 1400 EYE STREET, NW SUITE 300 WASHINGTON, DC 20005			ALEJANDRO, RAYMOND	
			ART UNIT	PAPER NUMBER
			1745	

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No. 10/072,907		Applicant(s) CHOI ET AL.	
Examiner Raymond Alejandro		Art Unit 1745	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 05 June 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☒ The Notice of Appeal was filed on 06/05/06. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1-9, 17, 38 and 39.
Claim(s) withdrawn from consideration: 29-37.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see next page.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____.
13. ☐ Other: _____.


RAYMOND ALEJANDRO
PRIMARY EXAMINER
 Raymond Alejandro
 Primary Examiner
 Art Unit: 1745

Continuation of 5. Applicant's reply has overcome the following rejection(s): since applicant cancelled claims 10-16, the 35 USC 103 rejection for those claims have been overcome.

Response to Arguments

1. Applicant's arguments filed 06/05/06 have been fully considered but they are not persuasive.

2. Initially, applicant has contended that *“the combination of Chu and JP’431 does not teach or suggest all of the express limitations of independent claim 1...”*, particularly that *“JP’431 contains absolutely no teaching or suggestion as to what the average pore size is...”*. Later, applicant contended that *“JP’431 clearly teaches away from the lower range of pores for its conductor. In particular, referring to the full Japanese document, JP’431 describes that a graphite material having a pore size of 240 μm in Example 1, 350 μm in Example 2, 170 μm in Example 3, 200 μm in Example 5, and 150 μm in Example 6 improves the battery performances, but that a graphite material having a pore size 8 μm , as in Example 7, deteriorates the battery performance”*. So, applicant’s contention that JP’431 contains absolutely no teaching or suggestion about average pore size is categorically refuted by the examiner by the very same arguments that applicant provided subsequently. That is, applicant’s admission that the JP’431, indeed, does disclose specific embodiments encompassing multiple pore size ranges. Thus, applicant’s arguments are absolutely unintelligible and ill-founded.

3. Applicant has further argued that Examples 1-6 correspond to preferred embodiments and, therefore, the JP’431 teaches away from employing pore sizes in the lower end of the 10-1000 μm range because the lower end of the disclosed range in JP’431 appears to be a non-preferred embodiment. In this respect, a finding that the prior art as a whole suggests the desirability of a particular pore size need not be supported by a finding that the prior art suggests that the pore size claimed by the patent applicant is the preferred, or most desirable, combination.

Art Unit: 1745

In other words, it is not required that a particular combination must be the preferred, or the most desirable, combination described in the prior art in order to provide motivation for the current invention. The question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making or selecting the claimed pore size, not whether there is something in the prior art as a whole to suggest that the combination is the most desirable combination available. As a result, applicant's argument regarding the preference of Examples 1-6 to discredit the lower end of the disclosed range in JP'431 is not sufficient to overcome this rejection, and therefore, the applied disclosure which also encompasses many other pore sizes is valid, and pertinent thereto.

4. Applicant has argued that the JP'431 only exemplifies pore sizes in Examples 1-6 not lying within the claimed range, in response to that, the examiner asserts that:

a) a reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill might reasonably infer from the teachings. *In re Opprecht* 12 USPQ 2d 1235, 1236 (Fed. Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA 1976); *In re Lamberti* 192 USPQ 278 (CCPA 1976); *In re Bozek* 163 USPQ 545, 549 (CCPA 1969); *In re Preda* 159 USPQ 342 (CCPA 1968); *In re Van Mater* 144 USPQ 421 (CCPA 1965); *In re Jacoby* 135 USPQ 317 (CCPA 1962); *In re LeGrice* 133 USPQ 365 (CCPA 1962);

b) a reference is not limited to working examples *In re Fracalossi* 215 USPQ 569 (CCPA 1982);

c) non-preferred embodiments can be indicative of obviousness. *Merch & Co. v. Biocraft Laboratories Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1989); *In re Lamberti* 192 USPQ 278 (CCPA 1976); *In re Kohler* 177 USPQ 399 (CCPA 1973); *In re Mills* 176 USPQ 196 (CCPA 1972); *In*

Art Unit: 1745

re Bozek 163 USPQ 545 (CCPA 1969); *In re Meinhardt* 157 USPQ 270 (CCPA 1968); *In re Boe* 148 USPQ 507 (CCPA 1976); *In re Nehrenberg* 126 USPQ 383.

5. In response to applicant's argument that “*there is no motivation to combine the teachings of Chu and JP’431 ...*” because “*Chu already suggests a mechanism for improving conductivity, which is to thoroughly and uniformly disperse an active-sulfur in an electronically conductive material and an ionically conductive material*”, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

6. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., *homogeneous, or segregation or agglomeration or heterogeneity*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). For instance, even though applicant appears to be arguing that “*Chu emphasizes... homogeneity, not heterogeneity or segregation or agglomeration...*” and that JP’431 appears to be disclosing materials that “*by its nature cannot be mixed with a sulfur material to form a homogenous composition*”, absent additional limitations in the claims further defining whether applicant's inventive material is homogeneous or heterogeneous the examiner finds that this argument adds nothing of significance to the patentability of the present claims. Why such a teaching is so important and relevant to the invention of the applicant, if applicant is not even concerned with that problem? Specific sulfur materials as active material having specific pore

Art Unit: 1745

sizes is what is relevant to the claimed invention, not its degree of homogeneity or heterogeneity. If applicant wishes to have that limitation considered, such a limitation must be included in the present claims.

7. (*Emphasis supplied*→) In general applicant has also argued that the prior of record is silent about “*the average pore size*” and “*the average particle size of element sulfur*”. In doing so, applicant appears to put a lot of emphasis on the term “average” per se to the point of apparently arguing that “*an average pore size (or particle size) can not be assumed from a disclosure of a range of pore sizes in a material*”. However, while the examiner not necessarily disagrees with applicant’s characterization of “average pore size” and “average particle size” as a single feature, the examiner strenuously contends that the present claim language makes no attempt to specifically and unequivocally characterizes “average pore size” and “average particle size” as such. For example, the recitation “*an average size greater than or equal to substantially 5 μ m and less than and including 15 μ m*” and “*an average particle size of the elemental sulfur is greater than 0 μ m and is up to 20 μ m*” fully include a range within which the “average” size can lie. Although that language may meet section 112 requirements for purpose of definiteness, certainly, it opens the possibility of including “a range within the average range” [*sic*] of the particle size or pore size. Therefore, while applicant’s characterization of the average pore size or particle size may be correct, such a characterization in no way is reflected in the present claims. All in all, applicant’s recitation of “an average size lying within a claimed range” can be reasonably construed as essentially claiming different particles sizes rather than an average size as a whole. Simply put, an average size does inherently includes a distribution of different sizes which in average produces a “ specific average size”; nonetheless, having a range for an average

Art Unit: 1745

size does not strictly translates into having only one specific average size, actually, it might be translated into having a size range for multiple pore/particle size distributions, and/or a range for specific particle/pore sizes. Which one is applicant intending to recite? This is certainly unknown at this point and based on applicant's arguments. To that effect, a reasonable interpretation of the present claim language (not even the broadest reasonable interpretation) may lead a skilled artisan in the art to understand that applicant's claimed "average size" is not actually making reference to the average size per se, but simply to a pore size of between 5 μm and 15 μm ; and a particle size ranging from 0 μm to 20 μm .

Additionally, certain applicant's arguments have been already addressed and/or discussed by the examiner in prior office actions. Therefore, they are being again presented herein for the convenience of applicant.

8. The gist of applicant's arguments remains substantially equal to all of the previously presented arguments. Accordingly, applicant's contention is substantially the same contention (arguments) brought to the examiner's attention in the last two amendments dated 10/04/05 and 04/06/05 and to which office actions and responses addressing such contention (arguments) have been already issued in prior office actions dated 05/04/05 and 10/24/05. Thus, the examiner verily believes that most of applicant's arguments have been already properly twice-addressed and responded to. Therefore, the response to applicant's arguments is being repeated here for applicant's convenience.

9. In this case, it is noted that, at least, one of the two end point of the JP'431 (i.e. 10 μm) constitutes a valid data point and thus it fully encompasses the claim as the end point represents a specific disclosure of a discrete embodiment of the invention disclosed by the prior art which

Art Unit: 1745

amounts to a complete description and, therefore, an anticipation of the claimed range. See Ex Parte Lee 31 USPQ2d 1105.

10. (old responses) By way of review, applicant is contending that “there is no motivation to combine the references because... Chu present different solutions to the same conductivity problem...Chu would not suggest looking to the specific porosity ” and that “the JP’431 teaches using melted sulfur (infusing)” and that “the broad range of pore sizes disclosed in JP’431 does not overlap...”. In response to applicant's argument that the two references are not combinable, the fact that applicant has recognized another advantage/disadvantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See Ex parte Obiaya, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). In addition to that, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. (←Emphasis added) See In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Moreover, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). Lastly, applicant is reminded that a showing of unexpected results should include a direct comparison between the claimed invention and the closest prior

Art Unit: 1745

art. To that effect, applicant has not demonstrated that unexpected results are obtainable over the combined-applied art. Burden is on applicant to furnish objective evidence demonstrating so.

Accordingly, a strong prima-facie case of obviousness is deemed to still exist as the combined prior art (i.e. Chu and JP'431) directly teach all the claimed features, particularly, the instantly claimed invention including pore size within the claimed range. Thus, it is believed that the prima-facie case of obviousness is strong enough.

11. The principal contention of applicants' arguments is now premised on the assertion that "a prima-facie case of obvious does not exist simply because the JP'341 publication describes a solution to a problem already solved in Chu in regards to sulfur conductivity and does not suggest that the solution is advantageous over the solution proposed in Chu" (i.e. "*Chu already suggests a solution to the very problem which JP'431 purports to solve*"). However, this assertion is still insufficient to over the 35 USC 103 obviousness rejection because the test for obviousness is not whether the features of a secondary reference may be bodily (i.e. functionally) incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art (*emphasis added*). See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Moreover, the fact that applicant has recognized another advantage/disadvantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Moreover, not because the two references solve the conductivity issue in apparent dissimilar ways, the specific teaching of the pore size of the JP'341 publication

Art Unit: 1745

becomes irrelevant to the general teachings of Chu. Therefore, the applied obviousness rejection will be maintained unless applicants provide objective evidence demonstrating that the JP'341 publication's material including the claimed pore size cause deleterious or catastrophic effects if used in the lithium-sulfur battery of Chu. The burden is shifted to the applicants.

12. With respect to applicants' arguments that "there is no expectation s to which element of this large range would achieve best conductivity, nor an invitation to explore pore diameters below 10 μm or above 1000 μm (i.e. in reference to the teachings of the JP'431)", the examiner contests that given that the JP'431 publication directly teaches a sulfur containing cathode having a pore diameter of at least 10-15 μm , a prima-facie case of obviousness still exists.

Applicants' attention is respectfully directed to **MPEP 2144.05 [R-1] Obviousness of Ranges** where is stated that in the case where the claimed range lies inside or overlaps a range disclosed by the prior art a prima-facie case of obviousness exists. In re Wertheim 191 USPQ 90; or at least, is sufficient to establish a prima-facie case of obviousness. In re Peterson 65 USPQ2d 1379. Hence, the JP'431 publication directly teaches using sulfur cathode materials having a pore size within the claimed range by positively stating that the pore diameter is critical to achieve the desired cathode conductivity. Moreover, having presented reasonable ground of rejection based on the teachings of such Japanese publication (i.e. the JP'431 publication), it is contended that the JP'431 publication discloses that it is essential to use a porous conductor [in sulfur containing cathodes and batteries] consisting of a material having a degree of porosity with pore diameters of 10-1000 μm as a cathode member to increase the conductivity of the cathode. As a result, the examiner has presented reasonable and justifiable evidence to maintain that that the prior art certainly imparts criticality to the pore diameter.

Art Unit: 1745

13. As to the assertion that “Kovalev et al suggest multiple particle sizes for elemental sulfur, including particles from 0.01 to 100 microns, but Kovalev et al does not suggest which particle size should be used within this broad range, or which portion is advantageous to use”, the examiner again contests that given that Kovalev et al directly teaches that the particle size of elemental sulfur is from 0.01 to 100 microns, including at least from 0.01 μm up to 20 μm , a prima-facie case of obviousness still exists. Applicants’ attention is respectfully directed to **MPEP 2144.05 [R-1] Obviousness of Ranges** where is stated that in the case where the claimed range lies inside or overlaps a range disclosed by the prior art a prima-facie case of obviousness exists. In re Wertheim 191 USPQ 90; or at least, is sufficient to establish a prima-facie case of obviousness. In re Peterson 65 USPQ2d 1379. Hence, Kovalev et al directly teach the use of sulfur materials having a particle size within the claimed range.

14. As to the specific pore size as recited in claim 3, it is stated that a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties.

Titanium Metal Corp. of America v. Banner 227 USPQ 773. Moreover, the normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine a satisfactory and optimum pore diameter. The JP’431 publication discloses that the porosity and the pore size per se are essential to increase the conductivity of the cathode.

Therefore, the specific porosity and pore size are taught to be a result-effective variable, and the discovery of optimum of result effective variable in a known process is ordinarily within the skill of art. In re Boesh 205 USPQ 215 (CCPA 1980). Thus, applicant’s arguments concerning this matter have been fully considered but are unpersuasive.

Art Unit: 1745

15. With particular respect to applicants' arguments regarding the broad range (including both the pore diameter range and/or the broad particle size range of Kovalev et al), the examiner now categorically contends that the JP'431 publication positively discloses such cathodes having the specific pore size are better conductor (conductivity is increased) and can be used in electrochemical applications involving alkali-metal technology; in addition, it is also stated that Kovalev et al directly teach the use of elemental sulfur within the claimed particle size. Hence, since the prior art of record directly teaches a sulfur containing cathode having a pore diameter of at least 10-15 μm (*regardless the entire disclosed range from 10-1000 μm*) and elemental sulfur having a particle size ranging from 0.01-100 μm , a prima-facie case of obviousness still exists. Applicants' attention (**emphasis added**) is respectfully directed to ***MPEP 2144.05 [R-1] Obviousness of Ranges*** where is stated that in the case where the claimed range lies inside or overlaps a range disclosed by the prior art a prima-facie case of obviousness exists. *In re Wertheim* 191 USPQ 90; or at least, is sufficient to establish a prima-facie case of obviousness. *In re Peterson* 65 USPQ2d 1379. In particular, the JP'431 publication directly disclose the use of sulfur cathode materials having a pore size within the claimed range by positively stating that the pore diameter is critical to achieve the desired cathode conductivity; and Kovalev et al's particle size range encompasses the claimed one.

16. In the event that applicants further argue that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071,

Art Unit: 1745

5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the JP'431 publication and Chu et al share the same field of endeavor and/or at least are pertinent to the particular problem with which the applicant was concerned as they both address and disclose alkali metal-sulfur based batteries and their related technologies.

17. As to the assertion that the prior art “does not suggest advantage to any of these ranges as evident from Figures 4 and 5 and Tables 1 and 2 and paragraph 0023 and 0024” and that “applicant’s range imparts a novel feature as compared to the general conditions suggested in the existing art”, it is noted that applicants’ results show that the particular range is critical for a particle size of 5 μm only. For example, EXAMPLES 1-4 show the use of particle sizes of 5 μm only (SEE EXAMPLES 1-4). Further, Applicants are also comparing EXAMPLES 1-4 having a particle size of 5 μm with COMPARATIVE EXAMPLES 1-2 having particle sizes of 30 μm and 15 μm , respectively. Thus, as apparently admitted by the applicants, there is no unexpected result for the claimed range of particle sizes greater than about 15 μm . In addition, the results of Tables 1-2 of which applicants claim to show unexpected results are only commensurate with the specific particle size of 5 μm . Hence, applicants have failed to provide objective evidence establishing the advantage of particle sizes throughout the entire claimed range (i.e. greater than or equal to 5 and less than and including 15 μm). Thus, it is considered that particle sizes immediately below about 5 μm and greater than 5 μm (i.e. $0 < \text{particle size } (\mu\text{m}) < 5$ and $5 < \text{particle size } (\mu\text{m}) < 15$) has no effect on the life cycle of the resulting battery. Therefore, since the prior art directly teaches particle sizes greater than 5 μm , a prima-facie case of obviousness still exists. Applicants’ attention is respectfully directed to **MPEP 2144.05 [R-1] Obviousness of Ranges** where is stated that in the case where the claimed range lie inside a range disclosed by

Art Unit: 1745

the prior art a prima-facie case of obviousness exists. In re Wertheim 191 USPQ 90; or at least, is sufficient to establish a prima-facie case of obviousness. In re Peterson 65 USPQ2d 1379.

A handwritten signature in black ink, appearing to be 'RA' with a long horizontal stroke extending to the right.

**RAYMOND ALEJANDRO
PRIMARY EXAMINER**